



BEFORE THE ARIZONA CORPORATION COMMISSION

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Chairman  
GARY PIERCE  
Commissioner  
BRENDA BURNS  
Commissioner  
BOB BURNS  
Commissioner  
SUSAN BITTER SMITH  
Commissioner

Arizona Corporation Commission

DOCKETED

MAY - 8 2013

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IN THE MATTER OF RESOURCE  
PLANNING AND PROCUREMENT FOR  
2011 AND 2012

DOCKET NO. E-00000A-11-0113

DECISION NO. 73884

ORDER

Open Meeting  
May 1 and 2, 2013  
Phoenix, Arizona

BY THE COMMISSION:

FINDINGS OF FACT

1. The Utilities Division Staff ("Staff") and its consultants Global Energy & Water Consulting, LLC and Evans Power Consulting, Inc. ("Consultants"), have completed the Assessment of the 2012 Integrated Resource Plans of the Arizona Electric Utilities ("Assessment") as required by Arizona Administrative Code ("A.A.C.") R14-2-704A. The Assessment has been filed in the docket. Background

2. The Assessment represents the professional opinion of Staff and its Consultants. The Assessment is not an evaluation of individual electric service providers' facilities or quality of service. The Assessment does not set Commission policy or approve of any plan or specific project(s). Rather, it assesses the adequacy of the Integrated Resource Plans ("IRP" or "IRPs") to meet the requirements of the Commission's Resource Planning and Procurement Rules. The IRPs

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1 have been prepared by the four Load-Serving Entities (“LSE” or “LSEs”) as defined in the Rules.<sup>1</sup>  
2 The LSEs are Arizona Electric Power Cooperative (“AEPCO”), Arizona Public Service Company  
3 (“APS”), Tucson Electric Power Company (“TEP”), and UNS Electric, Inc. (“UNSE”). In  
4 addition, the second largest electric utility in Arizona, Salt River Project (“SRP”), which is not  
5 subject to these rules and regulations of the Commission and is not required to file an IRP, has  
6 voluntarily supplied certain information that is included in the Assessment.

7 3. An IRP is essentially the utility’s plan to meet the future electric needs of its  
8 customers in a way that considers environmental impacts along with the concerns of customers,  
9 regulators, stockholders and other stakeholders. Within the IRP, the selection of ways to reduce,  
10 or shift electric usage (demand-side resources) are weighed in an equitable fashion against ways to  
11 increase the production of electricity (supply-side resources) . The bottom line of an IRP is a  
12 schedule of demand-side and supply-side resources that will provide for the continued reliable  
13 delivery of electricity to customers in Arizona.

14 4. The Commission’s rules include certain filing requirements and require the  
15 Commission to determine whether each IRP complies with the requirements of the rules and is  
16 reasonable and in the public interest based on the information available to the Commission at the  
17 time, considering the following factors:

- 18 A. The total cost of electric energy services;
- 19 B. The degree to which the factors that affect demand, including demand  
20 management, have been taken into account;
- 21 C. The degree to which supply alternatives, such as self-generation, have been  
22 taken into account;
- 23 D. Uncertainty in demand and supply analyses, forecasts, and plans, and whether  
24 plans are sufficiently flexible to enable the utility to respond to unforeseen  
changes in supply and demand factors;
- 25 E. The reliability of power supplies, including fuel diversity and non-cost  
26 considerations;

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27 <sup>1</sup> An LSE is defined as “a public service corporation that provides electricity generation service and operates or owns,  
28 in whole or in part, a generating facility or facilities with capacity of at least 50 megawatts combined.” A.A.C. R14-2-  
701(26)

- 1 F. The reliability of the transmission grid;
- 2 G. The environmental impacts of resource choices and alternatives;
- 3 H. The degree to which the LSE considered all relevant resources, risks, and
- 4 uncertainties;
- 5 I. The degree to which the LSE's plan for future resources is in the best interest of
- 6 its customers;
- 7 J. The best combination of expected costs and associated risks for the LSE and its
- 8 customers; and
- 9 K. The degree to which the LSE's resource plan allows for coordinated efforts with
- 10 other LSEs.<sup>2</sup>

11 5. In addition, each IRP (other than AEPCO's) must meet the requirements of the

12 Annual Renewable Energy Requirement, the Distributed Renewable Energy Requirement, and the

13 Energy Efficiency Standard.

14 The IRPs

15 6. AEPCO and APS filed 2012 IRPs on March 30, 2012. TEP and UNSE filed 2012

16 IRPs on April 2, 2012.

17 7. Staff held two workshops to gather stakeholder input. The first workshop was held

18 on August 22, 2012, and the second on October 25, 2012. The comments and presentations

19 submitted at the workshops, materials filed in the docket and with Staff, and subsequent

20 correspondence have been reviewed and incorporated in the Assessment, where appropriate.

21 8. A total of six parties were granted intervenor status: the Arizona Competitive Power

22 Alliance; Interwest Energy Alliance; the Solar Energy Industries Association; SolarReserve, LLC;

23 the Southwest Energy Efficiency Project; and Western Resource Advocates.

24 Assessment Conclusions

25 9. Staff and the Consultants believe that the 2012 Integrated Resource Plans produced

26 by APS, TEP and UNSE are reasonable and in the public interest, based upon the information

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28 <sup>2</sup> A.A.C. R14-2-704(B).

1 available to the Staff at the time this report was prepared and the factors set out in A.A.C. 14-2-  
2 704(B). While Staff believes the IRPs of APS, TEP and UNSE meet the requirements of the  
3 Commission's IRP rules, the following issues have been identified concerning the IRPs of APS,  
4 TEP and UNSE:

5 a. APS, TEP and UNSE

- 6 i. Conversion of Coal Plants to Natural Gas – None of the LSEs considered the  
7 possible conversion of existing coal generating plants to natural gas. This is a  
8 potentially viable option that would reduce the costs of emissions compliance and  
possibly bring long-term savings to the ratepayers.
- 9 ii. Consideration of Jointly Developed Generation – Although the Palo Verde Nuclear  
10 Generating Station and Four Corners generating plants, among others, were  
11 developed through joint efforts of a number of electric utilities, the LSEs of Arizona  
12 (other than UNSE) did not seriously consider the joint development of new  
13 generating plants in their 2012 IRPs. Economies of scale could produce cost  
14 savings that would benefit all. For example, large solar facilities, energy storage  
15 projects, and new nuclear generation may become more feasible under the  
16 assumption that construction and operating costs would be shared among the  
17 developers.
- 18 iii. Reliance on Future Short-Term Market Purchases – All three LSEs include future  
19 short-term market purchases throughout the 2012 IRPs. The cost and availability of  
20 such purchases are subject to a wide array of influences that are difficult, if not  
impossible, to predict. For example, if a large number of older coal-fired  
generating plants are retired in the western region, the availability of such purchases  
will decline dramatically, and the cost of such purchases will increase significantly.  
Reliance on short-term market purchases in a long-term plan is difficult, if not  
impossible, to justify. Instead, beyond a five-year horizon, the LSEs should only  
include additional demand-side management programs, additional supply-side  
resources, and long-term purchased power.
- 21 iv. Failure to Consider all Resource Options – None of the three LSEs considered all  
22 reasonable resources in the development of the 2012 IRPs. For example, APS did  
23 not consider all potential conventional energy storage facilities while TEP and  
UNSE failed to consider solar generators with storage capabilities.
- 24 v. Wind and Solar Integration Costs – Other than APS, the LSEs rely on wind and  
25 solar integration costs that are not specific to the entities' service territories and the  
26 entities' existing level of wind and solar facilities. TEP and UNSE should develop  
27 wind and solar integration costs that reflect the conditions within the TEP and  
28 UNSE systems.

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1       b. APS

- 2           i. Manual Selection of Resources - APS used a manual process to select the “best”  
3           mix of resources for each IRP that was considered. This is not the industry-  
4           accepted practice, could possibly result in the selection of a resource mix that is not  
5           the best possible mix, and limits the utility’s ability to fully evaluate a wide range of  
6           potential IRPs.
- 7           ii. No Load Growth Sensitivity – APS failed to develop alternative IRPs that reflected  
8           higher than expected load growth or lower than expected load growth. This is a  
9           generally accepted requirement for the development of an IRP, and provides insight  
10          into what actions would be required, should load growth increase faster or slower  
11          than predicted.

12       c. UNSE

- 13           i. Energy Efficiency Standard – The UNSE final selected IRP does not meet the  
14           Commission’s Energy Efficiency (“EE”) Standard. However, UNSE has  
15           committed to meeting the EE Standard in the implementation of the IRP.
- 16           ii. No Load Growth Sensitivity – UNSE also failed to develop alternative IRPs that  
17           reflected higher than expected load growth or lower than expected load growth.

18       d. AEPCO

- 19           i. Staff commends AEPCO for its efforts in providing information concerning its IRP  
20           and for its cooperative attitude, and notes that AEPCO is in a special situation  
21           regarding its member cooperatives. However, the AEPCO 2012 IRP does not  
22           satisfy the requirements of the Commission’s IRP rules. For example, the  
23           Commission’s rules require that the load-serving entity file an IRP that “selects a  
24           portfolio of resources based upon comprehensive consideration of a wide range of  
25           supply- and demand-side options”. AEPCO considered (and selected) only short-  
26           term market purchases as a potential resource to meet future needs. AEPCO also  
27           failed to provide a calculation of the benefits of generation using renewable energy  
28           resources, an analysis of integration costs for intermittent resources, or analyses to  
29           identify risks and uncertainties in the availability of sources of power.

30       Recommendations

31           10. Staff notes that the 2012 Integrated Resource Plans are the first plans to be prepared  
32           and submitted under the Resource Planning and Procurement Rules. In this context, Staff believes  
33           it is as important to provide guidance and set expectations for future IRPs to the LSEs, as it is to  
34           critique the IRPs purely on whether they do or do not meet the submittal criteria contained in the  
35           Rules. Therefore, Staff has proposed several recommendations which Staff believes will enhance  
36           and improve future IRP submittals by the LSEs.

1           11.     Staff has recommended that the Commission acknowledge the 2012 IRPs filed by  
2     APS, TEP and UNSE, and further, that the Commission recommend that APS, TEP and UNSE  
3     address the issues described above in their 2014 IRP filings.

4           12.     Staff has further recommended that TEP include a coal fleet retirement scenario in  
5     its 2014 IRP.

6           13.     Staff has further recommended that the Commission not acknowledge the 2012 IRP  
7     filed by AEPCO, due to the noted filing deficiencies. However, given AEPCO's unique  
8     circumstances as discussed in the Staff Report, we conclude that AEPCO's IRP should be  
9     acknowledged.

10          14.     Staff notes that AEPCO is unique among the LSEs covered by the IRP Rules since  
11     all of its energy sales are at the wholesale level and it serves no retail load. Therefore, AEPCO  
12     serves no demand-side role in the IRP process. In addition, AEPCO's wholesale, supply-only role  
13     has shrunk dramatically since 2001 with the conversion of its three largest, most rapidly  
14     growing members to partial-requirements status. With the conversion of these members to partial-  
15     requirements status, AEPCO no longer has responsibility for growth planning or resource  
16     acquisition for these members. Consequently, Staff has recommended that the Commission  
17     acknowledge AEPCO's unique situation by requiring AEPCO to continue in the IRP process but  
18     without the necessity of having its future IRPs acknowledged by the Commission.

19          15.     Staff has further recommended that AEPCO correct the noted deficiencies in future  
20     IRP filings. However, instead we will require AEPCO to submit, in future IRP filings, whatever  
21     information, data, criteria, and studies it has used in its 15-year planning scenarios.

22          16.     Staff has further recommended that AEPCO include an examination of the potential  
23     load growth attributes of its partial requirements customers when preparing its 2014 and all  
24     subsequent IRPs. We believe this should be done by AEPCO providing its partial requirements  
25     members' (PRMs') load forecasts to Staff on a confidential basis when AEPCO files its IRP.

26          17.     Staff has further recommended that, in all future IRPs filed with the Commission,  
27     each load-serving entity with possible extra capacity resulting in a reserve margin beyond 20%  
28     over a period of two years include an alternative scenario in which any incremental additions of

1 capacity, mandated or not, that contribute to the possible extra capacity are delayed until such  
2 additions do not contribute to the possible extra capacity. Each load-serving entity's IRP shall also  
3 include a comparison of all projected costs under this alternative scenario relative to the load-  
4 serving entity's other reserve scenarios in the plan, including a comparison of projected revenue  
5 requirements.

#### 6 CONCLUSIONS OF LAW

7 1. AEPCO, APS, TEP and UNSE are Arizona public service corporations within the  
8 meaning of Article XV, Section 2, of the Arizona Constitution.

9 2. The Commission has jurisdiction over AEPCO, APS, TEP and UNSE over the  
10 matters raised herein.

11 3. The Commission, having reviewed the 2012 Integrated Resource Plans and Staff's  
12 Memorandum dated December 21, 2012, concludes that it is in the public interest to adopt Staff's  
13 recommendations as discussed herein.

#### 14 ORDER

15 IT IS THEREFORE ORDERED that the 2012 Integrated Resource Plans of Arizona Public  
16 Service Company, Tucson Electric Power Company, and UNS Electric, Inc. are hereby  
17 acknowledged pursuant to A.A.C. R14-2-704(B).

18 IT IS FURTHER ORDERED that Arizona Public Service Company, Tucson Electric  
19 Power Company, and UNS Electric, Inc. shall address the issues identified in the 2012 Integrated  
20 Resource Planning Assessment and incorporate the appropriate responses in the 2014 Integrated  
21 Resource Plans.

22 IT IS FURTHER ORDERED that Tucson Electric Power Company shall include a coal  
23 fleet retirement scenario in its 2014 Integrated Resource Plan.

24 IT IS FURTHER ORDERED that the 2012 Integrated Resource Plan of Arizona Electric  
25 Power Cooperative is hereby acknowledged pursuant to A.A.C. R14-2-704(B).

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1 IT IS FURTHER ORDERED that Arizona Electric Power Cooperative shall continue in the  
2 IRP process but without the necessity of having its future IRPs acknowledged by the Commission.

3 IT IS FURTHER ORDERED that Arizona Electric Power Cooperative shall, in future IRP  
4 filings, submit whatever information, data, criteria, and studies it has used in its 15-year planning  
5 scenarios.

6 IT IS FURTHER ORDERED that Arizona Electric Power Cooperative shall provide its  
7 PRMs' load forecasts to Staff on a confidential basis when AEPCO files its IRP.

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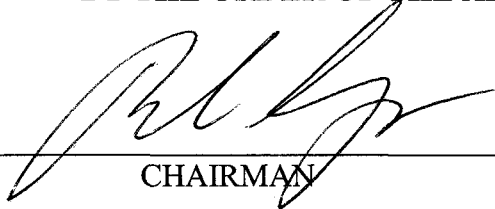
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IT IS FURTHER ORDERED that, in all future Integrated Resource Plans filed with the Commission, each load-serving entity with possible extra capacity resulting in a reserve margin beyond 20% over a period of two years shall include an alternative scenario in which any incremental additions of capacity, mandated or not, that contribute to the possible extra capacity are delayed until such additions do not contribute to the possible extra capacity. Each load-serving entity's IRP shall also include a comparison of all projected costs under this alternative scenario relative to the load-serving entity's other resource scenarios in the plan, including a comparison of projected revenue requirements.

IT IS FURTHER ORDERED that this Decision shall become effective immediately.

**BY THE ORDER OF THE ARIZONA CORPORATION COMMISSION**

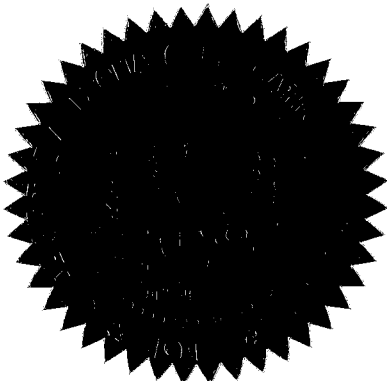
  
CHAIRMAN

  
COMMISSIONER

  
COMMISSIONER

  
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COMMISSIONER



IN WITNESS WHEREOF, I, JODI JERICH, Executive Director of the Arizona Corporation Commission, have hereunto, set my hand and caused the official seal of this Commission to be affixed at the Capitol, in the City of Phoenix, this 8<sup>th</sup> day of May, 2013.

  
JODI JERICH  
EXECUTIVE DIRECTOR

DISSENT: \_\_\_\_\_

DISSENT: \_\_\_\_\_

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